KOONLUNG®

Hidden Full HD Car DVR

User Manual

WEEE Notice

This symbol on the product or on the packaging indicates that this cannot be disposed of as a household waste. You must dispose of your waste equipment and/or battery by handling it over to the applicable take-back scheme for the recycling of electrical and electronic equipment and/or battery. For more information about recycling of this equipment and/or battery, please contact your city office, the shop where you purchased the equipment or your household waste disposal service. The recycling of materials will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and environment.

CE Regulatory Notice

This equipment complies with the requirements set out in the Council Directives on the Approximation on of the Laws of the Member States relating Electromagnetic Compatibility (2004/108/EC); the Low Voltage Directive (2006/95/EC); the Restriction of The Use of Certain Hazardous Substances in Electrical And Electronic Equipment Directive (2002/95/EC), Turkish EEE Directive; the Commission Regulation (EC) No 1275/2008 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to eco-design requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment, and the Directive 2009/125/EC.

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Notice

1. Please use the authorized charger only.
2. Never disassemble or attempt repair of this product. Doing so may damage the DVR, cause electric shock and void your product warranty.
3. Never short-circuit the battery.
4. Exposing the DVR to open flames can cause explosion. Due to local laws and vehicles safety considerations, do not manually operate the device while driving.
5. This camera is intended for non-commercial use, within the limits permitted by applicable law. Company is NOT responsible for the loss of any data/content during operation.
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1. Introduction

Thank you for purchasing this 2CH detached Car DVR. This device is specially designed for real time video and audio recording when driving.

1.1 Features

-2 channel detached cameras

-2.7” LCD color screen

-140 degree wide angle lens with full glass lens

-Front cable 3 meters and back cable 6meters

-Motion detection

-Automatic emergency recording for collision detection- Supports micro-SD up to 64GB (Class 10)

-LDWS (Lane Departure Warning System) and FCWS (Forward Collision Warning System)

-AV out to the car monitor

1.2 Package Contents

The package contains the following items. In case there is any missing or damaged item, contact your dealer immediately.

3m Front lens	DVR unit	6m Back lens	DVR holder
4.8V ~ 30V Charging cable	USB cable	Wired control*	AV out cable
Cable clips*16	3M pad	User manual	

* For the wired control, hold to start | stop recording; during recording, press

to protect file.

1.3 Product Overview

No.	Description
1	Cam1(Front)
2	Cam2(Back)
3	GPS | Wired control
4	Power | AV OUT
5	Reset
6	Menu
7	Mode

No.	Description
9	Up
10	Record | OK
11	HDMI
12	USB for computer
13	Card slot
14	Back cover
15	Speaker

8	Down	16	Power

2. Getting Started

2.1 Inserting the Memory Card

Insert the memory card with the gold contacts facing the front of the DVR. Push the memory card until it clicks into place.

To remove the memory card, push to eject the memory card out of the slot.

Note

1. Do not remove or insert the memory card when the device is being powered on. This may damage the memory card.
2. It is recommended to format the micro SD cards before the first use.

2.2 Installing in Vehicles

Please refer to the quick installation.

2.2.1 Mount the lens

1. Attached the lens to your window using the sticker.

2. Rotate and tilt the lens to the right position.

2.2.2 Mount the device

1. Hide the DVR inside your car. Or mount it on your windshield with the suction cup.

2. Connect the cables.

2.2.3 Connecting to Power

Use only the supplied car adapter to power up the device and charge the built-in battery.

1. Connect one end of the car adapter to power port of the DVR.

2. Plug the other end of the car charger to the cigarette lighter socket of your vehicle. Once the vehicle engine is started, the DVR powers on automatically and starts cycle recording.

Note:

1. The yellow LED lights up while the battery is charging.

2. Please take note if the environment temperature reaches 45°C or above, the car adapter still can supply power to DVR, but it will not charge the battery. This is the characteristic of Lithium polymer battery and is not a malfunction.

2.2.4 Powering the DVR On / Off

Auto Power On/Off

Once the vehicle engine is started, the device automatically turns on and start recording. Once the vehicle engine shuts down, the DVR automatically saves the recording and turns off the power within 5 seconds. Will be a countdown timer on the screen.

Manual Power On/Off

To manually turn on the power, press the POWER button for 2 seconds.

To turn off, press and hold the POWER button for at least 2 seconds.

2.2.5 Initial Settings

Before using the device, we recommend you to set up the correct date and time.

Set the Date and Time

To set the correct date and time, do the following in standby window:

1. Press [Menu] button to enter the OSD menu.

2. Press [Mode] button, to select system setups.

3. Press[▼] to select Data and Time.

4.Press [OK] and use [▲] [▼] to change the digits. Press [Mode] to move to another digit.

5. Repeat step 4 until the date and time setting is complete. Press [OK]

*If you use with GPS module, after you set the time zone and device gets signal, you will get the correct local time immediately.

2.3 Using the Car DVR

2.3.1 Recording Videos

Record videos while driving

When the vehicle engine starts up, the DVR automatically turns on and starts recording.

Recording will automatically stop when the engine is switched off. Or hold the wired control to stop recording.

Note:

On some cars, the recording will continue when the engine is switched off. If this happens, please remove the car adapter from the cigarette lighter.

Note:

1. One video file is saved for every 1, 2, 5, or 10 minutes of recording. See Using the Menu.

2. The device saves the recording files in the memory card. If the memory

card is full, the oldest file in the memory card is overwritten. See Using the Menu.

Emergency Recording

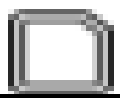
During Video Recording, press the wired control to enter emergency recording mode the [ ] icon will be shown immediately on the upper center of the screen, and the recorded file will be protected. To stop the emergency mode, press again the button again.

Note:

1. If the G-Sensor is enabled and a collision is detected, the device will automatically trigger the emergency recording. (G-sensor is on the front cam)

2. The emergency recording file is created as a new file, which will be protected to avoid being overwritten by normal cycling recording. If the space of emergency files exceed 25% of the card capacity, system will erase the oldest emergency files.

The Recording Screen

No.	Sign	Description
1	1920×1080	Indicates the video resolution.
2		Motion detection
3		GPS. Blinking for searching. Green for stable signal.(only after connecting GPS)
4		Mute recording
5		Micro SD card
6		Battery
7	2014/09/23	Date(Year/Month/Date)
8	00:25:15	Remaining recording time
9	12:03:17	Current time

10	000:00:27	Recording time
11	Car ID	Car ID. How to set, please check menu.

2.3.2 Playback Videos

If recording is in progress, press the [Record] button to stop recording. The standby screen is displayed.

Playing videos

1. in the standby screen.

2. Press[Menu] twice to enter into video playback list.

3. Press the [▲] [▼] button to browse for the desired video file and press the [OK] button to play the video. Press the [OK] button to pause the playback. Press it again to resume.

4. Press [▲] [▼] to adjust the video volume.

5. Hold [▲] [▼] to fast forward or backward, the speed is 2X/4X/8X/16X/32X/64X.

6. Press [Menu] button to stop playing and return to video list.

Tips: you can play all videos continuously. After select one video, hold menu button and choose “Video play all”.

2.3.3 Deleting Files

To delete or protect file(s), do the following

From the video standby or photo standby window：

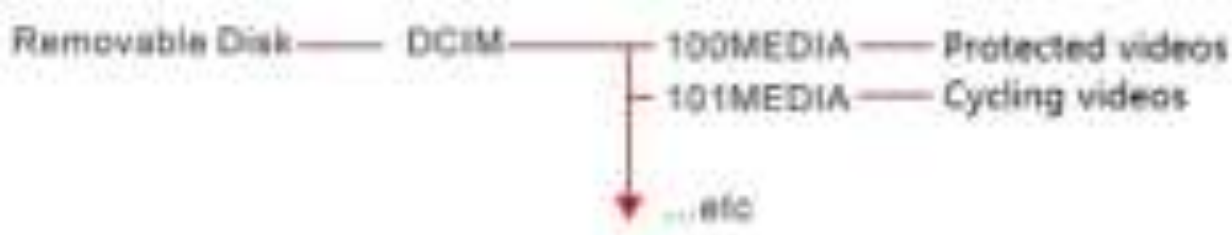
1.Press[▼]button to enter into video list

2.Press[▲] [▼] button to select file. Hold [Menu] button for 2 second.

3.Press [▲] [▼] button to Delete file, and press OK.

4. Choose from “Delete this file” and “Delete all files”.

2.3.4 File structure



Videos from front cam and back cam are in the same folder.

How to know which file is for the front cam?

From video file name: cam1 means the front cam, while cam2 means the rear cam.

The stamp structure on the video:

C1 +038.9734 +56.14117 115Km/h 096° 2014/08/30 20:45 CARID

2.3.5 GPS Player

How to use it:

1: Press the “+” to add video to play list. (Window 5 of picture above) Or if DVR is connected to computer, it will detect video files automatically.

2: Hit play button in window 3.

Information explain:

1: Title: here is the key information about this video.

2. Video

3. Here you can find the direction, G-Sensor and speed

4. GPS route. You can choose different built-in maps.

5. File tools and video list.

Tips:

a). There will be a player inside the root folder of your SD card. Named: RegistratorViewer5.8. Use this player on your computer for GPS route.

b) If you lose this player, just format your card on DVR. And it will appear again. Please do backup your important videos or date before formatting.

c) This is a player from Datakam. Thanks for the support of Datakam.

2.4 Speed Cam Alert

2.4.1 What is speed cam?

Before you use this function, please make sure it does not violate your

local laws. When it works, you will get warning of the coming speed cam.

2.4.2 How it works?

First it gets the GPS signal, and then compare it with the internal database. If the data matches, then it will send out the warning before 500m. The warning is voice, it will tell the speed cam type. And it will show the speed limit on the screen. When you passed the speed cam, it will hide.

2.4.3 How to update database?

It is very easy to update database manually, follow the steps below.

1. The correct database type

Get the new database and make sure it is the same type as the internal one. If you are not sure the type, please contact your seller.

2. Upgrade it into your DVR

Connect your DVR to computer, name your new database file to “gpsdb.txt”. Put this txt file under the root of the card. Turn on the device, and it will update automatically. After successfully updating, this file will disappear which you can connect the card to computer to check.

*The speed cam warning screen may differ from different firmware, please make sure you get the latest one.

3. Adjusting the Settings

Settings may change without prior notice.

3.1 Using the Menu

3.1.1 Recording Setting

Press [Menu] to enter into setup. Here you can see 4 settings of video. For detail, please check the menu tree of each settings.

3.1.2 System settings

Press the [Mode] button to enter system settings. For each of these 2 pages settings, you can do the following:

1. Press [▲] [▼] button to select settings and press [OK] to enter.
2. Press [▲] [▼] button to select the right options and press [OK].
3. Repeat step 1, 2 until finish all setups.
4. After finish, press [Menu] to quit menu setup.

3.2 Menu Tree

Refer to the below table for details on menu items and available menu options.

3.2.1 Video settings

Menu	Description	Options
Resolution	Set the video resolution of both cams	1920x1080 30P 16:9 1280x720 30P 16:9
Video quality	Set the video quality	S. Fine (Super Fine) Fine Normal
WDR	Software video boost	On/ Off
Stamp	Turn on or off stamps on video.	On/Off (cannot turn on separately, for example only showing time is not possible)
LDWS+FCWS Detect	Turn On/OFF LDWS and FCWS	ON/ OFF
LDWS Calibration	Calibrate LDWS	Set the correct lines: The purple line between sky and land; the red line between car and land.

SEC stream	To set the back cam resolution to save space	1920x1080P 1280x720P

3.2.2 System settings

Menu	Description	Options
Date/Time	Set date and time	Format: Year/Month/Date; Hour: Minute ([Mode] to move right; [OK] to confirm)
Car ID	Set your car ID	1. Press [OK] to choose

	number which can show on the video.	ENG/CHS/RUS characters; 2. Use [▲] [▼] to move left and right; 3. Use [Mode] to go down 4. Press [OK] button to input each character 5. Choose backspace if to replace old characters. 6. Finally select OK to quit. P.S. support up to 9 digits.
Format	Format the card	Yes/No
Default setting	Restore the factory settings	Yes/No
LCD Control	Set the brightness and contrast	Press OK and select brightness or contrast, and then move right or left to adjust and press OK. Press [Menu] to return.
Motion detection	Will start recording if objects move in	1. After start, there will be a sign on the screen.

	front of the camera.	2. Press OK to start detection. The sign will blink. 3. After detected objects, it will start recording.
LCD OFF time	Set how long to turn off the screen	OFF/30sec/1min/3min
Split time	Set how long will be each video file	1,2,5,10min **Please note it is cycle recording. New files will replace the old ones.**
GPS Power	Turn on or off the GPS	ON/OFF After turn off, the GPS sign will hide.
Time Zone	Set the time zone	Default is +4 Use [▲] [▼] to move left and right.
G-Sensor Level	Set the G-Sensor sensitivity	Use [▲] [▼] to move left and right. 0 is turned OFF. 1 is the most sensitive.
Scene Mode	Set different	OFF/Night/Night

	recording mode	portrait/Sports/Landscape /Portrait/Sunset/Sand/ Snow/Flower/Firework/ Water/Backlight/Tripod/ Blue Sky/Macro/Arena
AE BIAS	Set the EV exposure adjustment	Set from [-2.0] to [2.0] Use [▲] [▼] to move left and right.
Video flip	Set to flip the videos from the two lens	Both lens | cam1 lens | cam2 lens | OFF
Stamp Speed OFF	The GPS speed will hide on video if meet the setting speed.	Set from 20 – 170. Default is turn off. For your safety, please obey local laws and do not over speed.
Speaker volume	Adjust the volume	Set from [OFF] to [08] Use [▲] [▼] to move left and right.
Parking mode	After turn off engine, device will stop recording. If	ON/ OFF *It will use the internal

	detect objects moving, it will start recording again.	battery which last about 30minutes. If you use external power, make sure it is **2A** output. And if you connect to car battery directly, make sure you have an equipment to protect your battery.
Screen saver	If don't press the buttons for several second, it will show screen saver.	ON/ OFF *the timer is set in menu "LCD Off time"
Last Update		It will show the last update of the Speedcam database. This needs special format.
Language	Set the menu language	ENG/简体中文/繁体中文/Русский
Firmware	/	Please always provide this information, if you have any problems.

4. Specifications

Item	Description
Image sensor	1/2.7” 2M CMOS Sensor
Effective pixels	1920(H) x 1080 (V)
Storage media	up to 64GB class 10
LCD screen	2.7” LCD color TFT
Lens	160°Wide Angle Fixed Focus lens F2.0, f=2.8mm
Focus range	1.5m~ Infinity

Max resolution	Each channel: 1920 x 1080 30fps
Shutter	Electronic shutter Auto:1/2 ~1/2000 sec.
GPS	Optional
G-Sensor	3-Axis G-Force sensor
ISO	Auto
White balance	Auto
Microphone	Yes
Speaker	Yes
Interface	Mini USB, Mini C Type HDMI
Battery	1100mAH Li-Po rechargeable
Operating Temperature	-10° ~ 60° C
Operating Humidity	20 ~ 70% RH
Storage Temperature	-20° ~ 80° C

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